

## WHAT IS CLAIMED IS:

1. An information processing method for setting an exclusive control right of a data item by a specific process in a system in which a plurality of processes  
5 that can communicate with each other via an information transmission medium share data including a plurality of data items, comprising:

a first designation step of designating a desired data item for which the exclusive control right is to  
10 be set;

a retrieval step of retrieving a data item which belongs to a lower layer with respect to the data item designated in the first designation step on the basis of hierarchical structure information of the plurality  
15 of data items; and

a setting step of setting the exclusive control right by the specific process to the designated data item and the data item retrieved in the retrieval step.

2. The method according to claim 1, wherein the data  
20 is a scene graph database which is referred to upon generation of computer graphics of a virtual space.

3. The method according to claim 1, wherein the setting step includes a step of setting, when an exclusive control right by another process is not set  
25 for the designated data item and all data items retrieved in the retrieval step, the exclusive control right by the specific process.

4. The method according to claim 1, wherein the setting step includes a step of setting an exclusive control right for data items, for which no exclusive control right is set by another process, of the  
5 designated data item and data items retrieved in the retrieval step.

5. The method according to claim 1, further comprising:

a second designation step of designating a  
10 desired data item, an exclusive control right of which is to be released; and

a first release step of releasing the exclusive control right by the specific process of the designated data item and data items which are related to the data  
15 item designated in the second designation step and are retrieved in the retrieval step.

6. The method according to claim 5, wherein the first release step includes a step of releasing the exclusive control right by the specific process of data  
20 items, for which no exclusive control right by another process is set, of the data items retrieved in the retrieval step.

7. The method according to claim 1, wherein the setting step has a first setting mode for setting the  
25 exclusive control right by the specific process when no exclusive control right is set for the designated data item and all data items retrieved in the retrieval step,

and a second setting mode for setting the exclusive control right by the specific process for data items for which no exclusive control right is set, of the designated data item and data items retrieved in the retrieval step, and

an exclusive control right setting process is executed in a designated one of the first and second setting modes.

8. The method according to claim 7, wherein a user can designate a desired one of the first and second setting modes.

9. The method according to claim 7, wherein information indicating which of the first and second setting modes is to be applied is assigned to each of the plurality of data items.

10. The method according to claim 1, wherein an upper limit value of exclusive control rights to be set is set for each of the plurality of data items, and

the setting step includes a step of setting the exclusive control rights within the upper limit value.

11. An information processing apparatus for setting an exclusive control right of a data item by a specific process in a system in which a plurality of processes that can communicate with each other via an information transmission medium share data including a plurality of data items, comprising:

a holding unit for holding hierarchical structure information of the plurality of data items;

a first designation unit for designating a desired data item for which the exclusive control right is to be set; and

a setting unit for setting the exclusive control right by the specific process to the designated data item and a data item which is related to the designated data item on the basis of the hierarchical structure information and belongs to a layer lower than the data item designated by the first designation unit.

12. A control program for making a computer execute an information processing method of claim 1.

13. A storage medium storing a control program for making a computer execute an information processing method of claim 1.

14. An information processing method for setting an exclusive control right of a data item by a specific process in a system in which a plurality of processes that can communicate with each other via an information transmission medium share data including a plurality of data items, comprising:

a designation step of designating a desired data item for which the exclusive control right is to be set; and

a setting step of setting the exclusive control right by the specific process to the designated data

item and a data item which belongs to a layer lower than the data item designated in the designation step on the basis of hierarchical structure information of the plurality of data items.

5